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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/473,098
Filing Date: December 28, 1999
Appellant(s): ESTRADA ET AL.

MAILED

SEP 11 2007

Technology Center 2100

BECKSTRAND, SHELLEY
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed **7/23/2007** appealing from the Office action
mailed **10/10/2006**.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,233,600	Salas et al.	5-2001
6,484,196	Maurille	11-2002
5,129,083	Cutler et al.	7-1992

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

These rejections are set forth in prior Office Action, Paper No.
09473098\20060927 and reproduced for the convenience.

1. Applicant's arguments filed 7/10/2006. Claims **1-7, 9, 10, 13, 15** are pending.
Claims **1, 3, 9, 10, 13, 15** were amended. Claims **8, 11, 12, 14** were cancelled.
Independent claims are **1, 3, 9, 10, 13, 15**.

Claim Rejection – 35 USC § 103

2. Claims **1-7, 9, 10, 13, 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Salas** (US Patent No. 6,233,600) in view of **Maurille** (US Patent No. 6,484,196) and further in view of **Cutler et al.** (US Patent No. 5,129,083).

Regarding Claim 1, Salas discloses a collaboration space created as a web site by a user at a browser including a plurality of rooms in a hierarchical structure with access control list control on rooms and access control list control on forward pointers to child rooms (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 3, lines 49-51: plurality of rooms with hierarchical pointers and access mechanism), comprising:

- c) said readers field being a members object for identifying members authorized to access said room and for each member a level of authorization. (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control (readers field) mechanism)

- a) Salas discloses wherein said web site including a database and an access control list for users authorized to access said room and a notes, each subroom being an independent entity belonging to said place, said place having a first data note including a directory of members of said place. (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 3, lines 49-51; col. 13, lines 32-34) Salas does not specifically disclose a database system for management of collaborative space. However, Maurille discloses a place comprising a plurality of subrooms, (see Maurille col. 6, lines 44-57: database system for member, message information) each subroom within said place having a data note associated therewith containing an access control list of members selected exclusively from said directory of

members by a member of said place having manager authority with respect to said subroom for specifying users of said place authorized to access said subroom, and Cutler specifically discloses the usage of object oriented technology utilizing access control list techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

- b) Salas discloses a readers field for providing access control list type control on said forward pointer and a child room and subroom, each subroom being an independent entity belonging to said place, said place having a first data note including a directory of members of said place. (see Salas col. 13, lines 32-34; col. 14, lines 37-39) Salas does not specifically disclose a database system for collaborative workspace. However, Maurille discloses forward and reverse pointers for linking said subrooms (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: to/from (forward/reverse) pointers), each said forward pointer including indicia specifying the address location of the entity forming said child room (see Maurille col. 6, lines 44-57: database system for member, message information).
- d) Salas discloses a document readers field for a document containing data in said subroom being a members object for identifying a subset of members of said place authorized to access a subroom who are also authorized to access said document. (see Salas col. 13, lines 32-34: readers field), and Cutler specifically discloses the utilization of object oriented techniques such as access control list

techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

- e) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilization of standard object oriented techniques for collaborative space processing such as pointers to objects containing access control lists (ACLs)

and controlling access to objects as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment.

(see Maurille col. 6, lines 13-16: “ ... *Message mode allows a user to interact with a private bulletin board in which his messages (i.e., any message involving the user as sender or recipient) are instantly available and displayed with full threading information ...* ”), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity. (see Cutler col. 1, lines 47-53: “ ... *access control should also provide limited "visibility" of computer resources ... unauthorized user cannot obtain information about another user ... protect data integrity ... protect against simultaneous accesses by different authorized processes ...* ”)

Regarding Claim 2, Salas discloses the collaboration space of claim 1, said levels of authorization including manager, author, and reader. (see Salas col. 13, lines 27-37; col. 14, lines 44-54: authorization levels (manager, reader, coordinator) are managed to allow create, modify, edit procedures)

Regarding Claim 3, Salas discloses a collaboration space created as a web site by a user at a browser, comprising:

- b) a member directory for said place identifying users authorized to enter said place;
(see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to

interact within collaborative workspace; col. 3, lines 49-51: member information and access controls)

- c) each said room comprising one or more pages, and for each said room a members object for identifying a subset of members of said place authorized to access said room and for each member a level of authorization, each member of said subset of members being a user authorized in said member directory to enter said place; (see Salas col. 3, lines 49-51; col. 14, lines 39-44: member information and access levels)
- a) Salas discloses a plurality of rooms with pointers in a hierarchical structure for a collaborative workspace. (see Salas col. 3, lines 49-51) Salas does not specifically mention forward and backward pointers. However, Maurille discloses objects (rooms) linked by forward and backward pointers. (see Maurille col. 16, lines 17-22; col. 8, lines 33-38; pointers with to/from (forward/backward) pointers for parent/child navigation)
- d) Salas discloses a readers field for providing access control list control on said forward pointer, said readers field for identifying those members of said subset of members of said place authorized to access a parent room that are also authorized to access a child room and a database for said rooms including a parent room and a child room structure for collaborative workspace. (see Salas col. 3, lines 49-51; col. 13, lines 32-34) Salas does not disclose forward and backward pointers. However, Maurille discloses said pointers comprising

forward and backward pointers for enabling the security of each said room to be independently managed, said forward pointers including indicia identifying said child room, indicia specifying the address location of the database forming said child room (see Maurille col. 6, lines 44-57: database system for member, message information), and Cutler specifically discloses the utilization of object oriented techniques such as access control list techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

- e) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Regarding Claim 4, Salas discloses the collaboration space of claim 3, said readers field including an access authority for each reader authorized to enter said room selectively as manager, author or manager. (see Salas col. 7, lines 8-10 col. 14, lines 39-54: readers field access control information for room with different access levels)

Regarding Claim 5, Salas discloses the collaboration space of claim 3, each said forward pointer being a secure pointer by carrying the same level of security as the child room to which it points. (see Salas col. 8, lines 12-16; col. 6, lines 52-56; col. 7, lines 8-10: room template controls room generation, parent-child relationship, child inherits characteristics of parent (including access capabilities)) Salas does not specifically

disclose the access control level for a child room is the same or less than the access control level of a parent room. However, Cutler discloses the same level of security as the child room to which it points. (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity. (see Cutler col. 1, lines 47-53)

Regarding Claim 6, Salas discloses the collaboration space of claim 5, each said forward pointer carrying in said readers field the same security as that of the subroom to which it points. (see Salas col. 8, lines 12-16; col. 6, lines 52-56; col. 7, lines 8-10: room template controls room generation, parent-child relationship, child (subroom) inherits characteristics of parent (including access capabilities))

Regarding Claim 7, Salas discloses the collaboration space of claim 6, further comprising a display for presenting to a specific user viewing a parent room a listing of its subrooms, said listing including for said specific user only those subrooms for which

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said readers field in said forward pointer includes an entry authorizing access by said specific user. (see Salas col. 12, lines 7-22: user interface for child (subroom) display)

Regarding Claim 9, 13, Salas discloses a method for controlling access to rooms within a collaboration place created as a web site by a user at a browser, comprising the steps of:

- a) maintaining for said collaboration place an access control list identifying those users authorized to enter said place; (see col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; Salas col. 3, lines 49-57: member information and access controls)
- c) displaying a parent room to a specific user, said parent room including a list of children rooms for which said readers fields on said forward pointers authorize said specific user access. (see Salas Figure 1; col. 6, lines 39-55: display interface for parent room)
- b) Salas discloses a readers field for providing access control list control on said forward pointer, said readers field exclusively specifying a subset of said users authorized to enter said place. Salas does not specifically disclose forward/backward pointers or a database system for the collaborative workspace. However, Maurille discloses said forward pointers including indicia identifying a child room, indicia specifying the address location of the database forming said child room; (see Maurille col. 16, lines 17-22; col. 8, lines 33-38; pointers with

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to/from (forward/backward) pointers for parent/child navigation: Maurille col. 6, lines 44-57: database system for member, message information), and Cutler discloses parent/child object access control list inheritance. (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent)

- e) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify

Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Regarding Claim 10, Salas discloses a method for creating a child room within a collaboration place data base created as a web site by a user at a browser, comprising the steps of:

- a) providing for said collaboration place data base a first access control list identifying users authorized to access said data base; (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 13, lines 32-34; col. 14, lines 31-36: access control mechanism to determine authorized user access)
- b) providing for said child room a back pointer to a parent room; (see Salas col. 6, lines 39-55: backward pointer to parent) and
- c) Salas discloses a readers field indicating authorized access to a room for providing a second access control list specific to said forward pointer and

providing at said parent room for said child room a forward pointer from said parent room to said child room. (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control) Salas does not specifically disclose a database system for collaborative space. However, Maurille discloses said pointer including indicia identifying said child room, indicia specifying the address location of the database forming said child room. (see Maurille col. 6, lines 44-57: database system for member, message information)

- d) initially including in said readers access field for a child room created from a form users identified in a form access list identifying users authorized to read rooms created from said form; (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control (i.e. readers field) mechanism for controlling access to objects)
- e) limiting reader access in said readers access field to said child room for a specific user to no more than the access granted said specific user in said first access control list (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control (i.e. readers field) mechanism for controlling access to objects), and
- f) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized

to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Regarding Claim 15, Salas discloses a computer program product for controlling access to rooms within a collaboration place created as a web site by a user at a browser. However, Cutler disclose a computer program product comprising:

- a) a computer readable medium; (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 6, lines 57-63: software (i.e. instructions) to implement collaborative management system)
- b) a first program instructions for maintaining for said collaboration a first access control list identifying those users authorized to enter said place; (see Salas col. 3, lines 49-57; col. 6, lines 57-63: member information and access controls, instructions)
- c) second program instructions for providing in a child room second access control list identifying a subset of those user authorized to enter said place who are also authorized to enter said child parent room with manager, author, or user access; (see Salas col. 13, lines 32-34; col. 14, lines 44-54; col. 6, lines 57-63: access levels for objects (i.e. rooms), instructions)
- e) fourth program instructions for displaying a parent room to a specific user, said parent room including on said forward pointers a list of children rooms for which said readers fields authorize said specific user access; and wherein said first, second, third, and fourth program instructions are recorded on said computer readable medium. (see Salas Figure 1; col. 6, lines 39-55; col. 6, lines 57-63: display interface for parent room, instructions)
- d) Salas disclose an access control (readers) field with pointers linking rooms and providing a third access control list on said forward pointer, said third access

control list providing access to said child room for those members who are included in said second access control list who are also authorized to access said child room. (see Salas col. 13, lines 32-34: object (i.e. room, pointer) access control mechanism) Salas does not specifically disclose forward and reverse (i.e. double-linked) pointers. However, Maurille discloses providing forward and reverse pointers linking said parent room with a child room in a double-linked list. (see Maurille col. 16, lines 17-22; col. 8, lines 33-38; pointers with to/from (i.e. forward/backward) pointers for parent/child navigation; col. 6, lines 44-57: database system for member, message information), and Cutler specifically discloses the usage of object oriented technology such as access control list techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

- e) Salas discloses wherein a fifth program instructions establishing said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be

enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

(10) Response to Argument

A. Claims 1-7, 9-10, 13, 15 stand rejected under 35 U.S.C. 103 as obvious over Salas et al (Salas, U.S. Patent 6,233,600) in view of Maurille (U.S. Patent 6,484,196) and further in view of Cutler et al. (Cutler, U.S. Patent 5,129,083).

Argument 1: Applicant argues that *the combination of the referenced prior art consisting of Salas, Maurille and Cutler is not obvious and improper. (see Appeal Remarks Pages 18-35).*

As to Argument A.1:

A search of prior art using the terms "collaborative workspace" indicated that over a hundred patent applications were being processed by the Patent Office by the end of 1998. With the earliest application dating back to 1990, indicating that there were more than a few individuals skilled in the art. Linked lists and hierarchical or tree data structure technologies are much older concepts than collaborative workspace. These three technologies were well known to one skilled in the art in 1999.

In response to applicant's argument, the Examiner never stated that the applicant invented collaborative workspace technology, ACL security technology, or hierarchical or tree data structure (i.e. parent, child, inheritance) technology. By 1999, the necessity for the implementation of security was well known due to multiple attacks on computer systems. And, ACLs (i.e. Access Control Lists) are an integral part of any security implementation in an IT environment. And, most data structures such as those used for databases and file systems were hierarchical in nature. In addition, the most popular programming language at that time (C++) was built upon the concepts of parent-child object oriented relationships and inheritance. The usage of these three technologies would have been obvious to one skilled in the art in 1999.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, in response to applicant's arguments against the reference individually, one cannot show nonobviousness by attacking references individually where rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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In the last Office Action, each obviousness rejection based on prior art discloses a specific function within the secondary reference, which is combined with the primary reference. In addition, a specific advantage is indicated and cited within the referenced prior art, which is the motivation for the combination. This requirement is based on the MPEP. The Salas prior art discloses the capability for a collaborative workspace (see Salas col. 5, lines 8-11; col. 12, lines 7-22; col. 3, lines 49-51; col. 6, lines 52-58: access control, collaborative workspace) with a database utilized to contain the data structures for rooms for the collaborative workspace. The Salas and Maurille prior art combination discloses a hierarchical (i.e. tree, parent-child) data structure utilizing forward and backward pointers. (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers) (see Appeal Remarks Page 23)

The Salas and Cutler prior art combination discloses an access control mechanism utilizing doubly linked lists. (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control list, doubly linked lists)

The scope of applicant's invention is as a system and in independent claims 13 and 15 as a software program, which is generated at the conclusion of a software development effort.

The concept of an Access Control List (ACL) is a standard security concept within software development and is well known to one skilled in the art. It designates the access rights a particular user has concerning a particular object (see references below). This particular object can be any object, such as a virtual room within a collaborative workspace or any other object within an IT data processing environment. The access control list contains fields, which designates different combinations of access rights to an object such as a room object or a particular user. Also, the concept of a linked list (i.e. even a search efficient doubly linked list) is well known to one skilled in the art. A linked list is an object, which incorporates a pointer designating another object (i.e. a room). Doubly linked list designates an object with pointers in a forward and a backward direction for fast and efficient searches.

Applicant argues that the examiner's conclusion of obviousness is based upon improper hindsight reasoning. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of

ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The combined prior art disclosures of Salas, Maurille, and Cutler and the indicated feature combinations (i.e. limitations) disclose the applicant's invention. Security and data structures are standard concepts implemented within any software development effort, and these issues would be addressed and resolved in any software development effort including the software for the applicant's invention. This is knowledge within the level of ordinary skill at the time of the claimed invention.

An obtained advantage is an acceptable reason for the obvious combination of prior art to one skilled in the art.

The rejection to each independent and dependent claim includes a citation from the referenced prior art that discloses the basis for the rejection. Each obviousness combination clearly indicates the claim limitation the combined reference prior art teaches. In addition, a cited passage from the referenced prior art clearly indicates the motivation for the obviousness combination. Each obviousness combination's disclosure is equivalent to the Applicant's claimed invention.

References:

(<http://www.answers.com/topic/access-control-list>)

Argument A.2: Applicant argues that the motivation is improper, *"in order to optimize message processing and display capabilities"*. (see Appeal Remarks page 24)

As to Argument A.2:

The Salas prior art discloses collaborative workspace activities as per the claimed invention. Messaging is the principal communications tool between the participants within a collaborative workspace. An obtained advantage of efficiently and effectively processing messages would be a motivation for the combination of the Salas and Maurille prior art references.

Argument A.3: Applicant argues that, *"the generic use of access control list on objects in an operating system as taught by Cutler does not map, to those of ordinary skill in the art"*. (see Appeal Remarks Page 25)

As to Argument A.3:

Access control lists operate within an operating system and the applications operational within the operating system including operating IT program(s) such as a collaborative workspace (claim 15 of applicant's invention indicates a computer program product for implementation). Access control lists are a standard access control mechanism and their usage in an invention would be an obvious decision.

Argument A.4: The Salas E-room is a database with tables on a server, but not a plurality of e-rooms. (see Appeal Remarks pages 25)

As to Argument A.4:

The Salas prior art discloses the capability for a collaborative workspace (see Salas col. 5, lines 8-11; col. 12, lines 7-22; col. 3, lines 49-51; col. 6, lines 52-58: access control, collaborative workspace) with a database utilized to contain the data structures for rooms within the collaborative workspace environment. The database is merely the underlying data structure for the workspace. From a user standpoint the workspace appears as a directory of rooms for collaboration.

Argument A.5: Rejection of Claims 1 and 2 under 35 USC 103

Applicant argues the distinctions of previous claims.

As to Argument A.5:

The arguments for these claim limitations are the same as the arguments for previous claims. These arguments were addressed in previous responses.

Argument A.6: Rejection of Claim 10 Under 35 USC 103

Applicant argues, "*the creation of a collaborative workspace room*". (see *Appeal Remarks Page 36*)

As to Argument A.6:

The Salas prior art discloses the capability for the creation of a collaborative workspace (see Salas col. 5, lines 8-11; col. 12, lines 7-22; col. 3, lines 49-51; col. 6,

lines 52-58: access control, collaborative workspace) with a database utilized to contain the data structures for rooms for the collaborative workspace.

Argument A.7: Rejection of Claim 3 Under 35 USC 103

Applicant argues, *"ACL on a child room can only include users identified as authorized to enter the root place"*. (see Appeal Remarks Page 37)

As to Argument A.7:

The Salas and Cutler prior art combination discloses an access control mechanism utilizing doubly linked lists. (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control list, doubly linked lists) The Maurille prior art discloses the hierarchical child room, and the Cutler prior art discloses the usage of an access control list. The entries in an access control can be any use even users with root privilege.

Conclusion

The Salas prior art discloses the capability for a collaborative workspace with a database utilized to contain the data structures for rooms for the collaborative workspace. The Salas and Maurille prior art combination discloses a hierarchical (i.e. tree, parent-child) data structure utilizing forward and backward pointers. And, the Salas and Cutler prior art combination discloses an access control mechanism utilizing doubly linked lists. The features are the principal claim limitations of Applicant's invention. These claim limitations are disclosed by the referenced prior art.

The current set of prior art consisting of **Salas (6,233,600)**, **Maurille (6,484,196)**, and **Cutler (5,129,083)**, disclose applicant's invention including the disclosures in Remarks dated July 8, 2007. Therefore, the rejection of claims 1-7, 9, 10, 13, 15 is proper.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

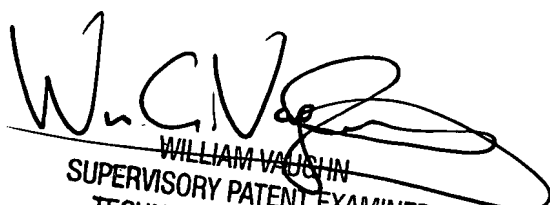
For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

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KHS
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